

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON

ACCELERATED MEMORY TECH, LLC,

Plaintiff,

v.

F5 NETWORKS, INC.

Defendant.

Cause No. 19-cv-183

COMPLAINT FOR PATENT
INFRINGEMENT

DEMAND FOR JURY TRIAL

Plaintiff Accelerated Memory Tech, LLC complains of Defendant F5 Networks, Inc. as follows:

NATURE OF THE DISPUTE

1. This is an action for patent infringement under 35 U.S.C. § 271, et seq., by Accelerated Memory Tech, LLC (“AMT”) against F5 Networks, Inc. (“F5”) for infringement of United States Patent Nos. 6,513,062 (the “062 Patent”). A true and correct copy of the 062 Patent is attached hereto as **Exhibit A**.

THE PARTIES

2. AMT is a Georgia limited liability company, located at 9235 Sourwood Drive, Gainesville, Georgia, 30506. AMT is the owner by assignment of all right, title, and interest in

1 the 062 Patent, including the right to recover for all past, present, and future infringement,
2 including past damages.

3 3. F5 is a software company that provides security, networking and storage products
4 based on network appliances and cloud services. One of F5's technologies is its Big IP-
5 Platform. F5 is a Washington Profit Corporation with its principal place of business at 401
6 Elliott Ave W, Seattle, WA, 98119, United States.

7
8 **JURISDICTION AND VENUE**

9 4. This is an action for infringement of a United States patent arising under 35
10 U.S.C. § 271, et seq. This Court has subject matter jurisdiction over this action under 28 U.S.C.
11 §§ 1331 and 1338(a).

12 5. This Court has general and specific personal jurisdiction over F5 under the due
13 process provisions of the United States and the Washington Constitutions. F5 resides in the state
14 of Washington and has a regular and established place of business in Washington, including
15 operating its office in this judicial district.

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17 6. Upon information and belief, venue is proper pursuant to 28 U.S.C. § 1400(b)
18 because F5 resides in and maintains a physical presence in this judicial district.

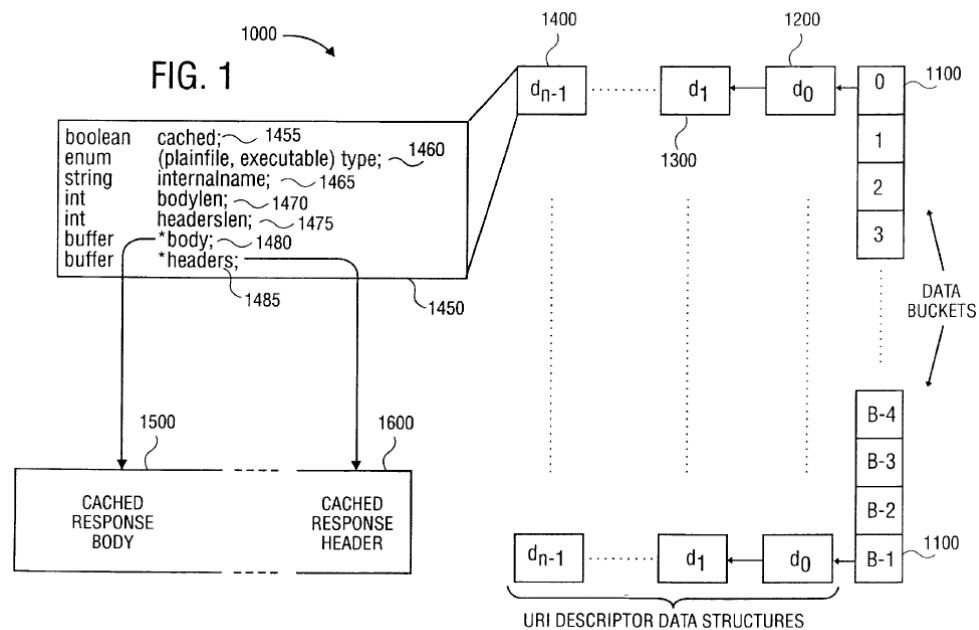
19 **THE ASSERTED PATENT**

20 7. The application for the 062 Patent was filed on May 25, 1999, and the patent
21 issued on January 28, 2003. The 062 Patent is titled, "Method, Apparatus, and Computer
22 Program Product for Efficient Server Response Generation Using Intermediate State
23 Caching."
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25 8. The 062 Patent is valid and enforceable.
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1 9. The Background of the 062 Patent generally describes how the invention is
2 aimed at improving server efficiency when multiple requests for the same resource are made
3 within a short time period. It states, “conventional servers are not highly efficient.” It then
4 goes on to describe how the conventional servers (*e.g.*, HTTP server), in response to a
5 request, engage in a rewrite mapping process (*i.e.*, one that transforms an external name used
6 in the request to an internal name used for locating the resource and generating the response).
7 Upon receipt of a request for the same resource a short period after the first request, the
8 conventional server has to undertake the same rewrite process. The Background section of the
9 062 Patent also describes another type of conventional server (*i.e.*, a caching proxy server),
10 but notes that such server has the same drawbacks as the conventional HTTP server –
11 “redundantly performing the mapping from the external name to the internal name for
12 repeatedly-requested resources.”
13

14 10. The 062 Patent improves on the conventional technology in a number of ways
15 including eliminating the redundant mapping process for repeatedly requested resources. As
16 set forth in detail in the Detailed Description, the 062 Patent makes this improvement through
17 the utilization of intermediate, cached information. The cache data architecture utilizes a hash
18 table with, in one embodiment, seven types of information. Figure 1 is a graphic example of
19 such hash table.
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COUNT I – INFRINGEMENT OF THE 062 PATENT

11. AMT herein incorporates the contents of the preceding paragraphs 1-10 as if restated fully herein.

12. F5's BIG-IP Platform includes services such as WebAccelerator that perform functions such as handling HTTP requests, dynamic caching, and load balancing.

13. The functionality and capabilities of the F5's BIG-IP Platform are described in **Exhibits B, C and D**. **Exhibit B** is true and correct copy of the website <https://f5.com/glossary/caching> as of October 3, 2018. **Exhibit C** is true and correct copy of a datasheet for BIG-IP WebAccelerator. **Exhibit D** is true and correct copy of the website <https://devcentral.f5.com/articles/revisiting-hash-load-balancing-and-persistence-on-big-ip-ltm> as of December 25, 2018.

14. Claim 1 of the 062 Patent state as follows, with claim element labels added in brackets:

[a] A computer-implemented method for efficiently generating responses for repeated

1 resource requests, said method comprising:

2 [b] receiving a first request for a first resource;

3 [c] deriving intermediate state information used in generating a first response to said first
4 request, said intermediate state information comprising a result of mapping an external name of
the first request for the first resource to an internal name associated with the first resource;

5 [d] caching said intermediate state information;

6 [e] receiving a second request for said first resource;

7 [f] retrieving said intermediate state information; and

8
9 [g] generating a second response to said second request using said intermediate state
information.

10
11 15. Use of F5's BIG-IP Platform infringes at least Claim 1 of the 062 Patent as
12 follows [with claim language underlined]:

13 16. To the extent the preamble limitation [a] of Claim 1 is limiting, using F5's
14 BIG-IP Platform performs a computer-implemented method for efficiently generating
15 responses for repeated resource requests. The BIG-IP Platform enables dynamic caching and
16 load balancing to handle repeated requests in a manner that performs the limitations of Claim
17 1. This is discussed in further detail below with respect to the remaining parts of this
18 paragraph.
19

20 17. Using F5's BIG-IP Platform performs limitation [b] of Claim 1 -- receiving a
21 first request for a first resource. For example, F5's Big-IP Platform receives HTTP requests
22 for a first resource such as, for example, an application server or content provided by the
23 application server. See **Exhibit C**.
24

25 18. Using F5's Big-IP's Platform performs limitation [c] of Claim 1 - deriving
26 intermediate state information used in generating a first response to said first request, said
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intermediate state information comprising a result of mapping an external name (e.g., a domain name, a URL) of the first request for the first resource to an internal name (e.g., a destination IP address or server name) associated with the first resource. F5's Big-IP's Platform derives intermediate state information. As an example, F5's Big-IP's system analyzes descriptor data structures in an HTTP request to derive the intermediate state information. This intermediate state information may be, for example, an identifiable pattern expressed in the HTTP request and may include data derived from identification of a specific cache device.

19. The intermediate state information in F5's Big-IP's system further comprises a result of mapping an external name of the first request for the first resource to an internal name associated with the first resource, as recited in limitation 1 [c]. For example, the domain name in the HTTP request may be an external name and the IP address or cache location may be an internal name associated with the first resource.

20. F5's BIG-IP Platform practices limitation [d] - receiving a second request for said first resource. For example, limitation [d] is performed at least by its use of dynamic caching as described below:

- **Dynamic Caching**—Caches data that may seem dynamic (contains query parameters, cookies, or session IDs) but is actually static data or changes in an identifiable pattern. By fully inspecting every aspect of HTTP requests, controlling caching behavior, and invalidating cached data, BIG-IP WebAccelerator caches a high percentage of data from dynamic web applications while maintaining proper application behavior. BIG-IP WebAccelerator cache can scale up to 1 TB, depending on the hardware platform.

Exhibit C at 4.

21. F5 documentation also states "The F5 BIG-IP® WebAccelerator™ makes dynamic caching possible by implementing two key capabilities: a sophisticated matching

1 algorithm that links fully qualified user queries to cached content, and a cache invalidation
2 mechanism triggered by application and user events.” **Exhibit B.**


3 22. Using F5’s Big-IP’s Platform performs caching said intermediate state
4 information, as recited in limitation [d]. After deriving intermediate state information, F5’s
5 Big-IP’s Platform caches intermediate state information to use it to fulfill subsequent requests.
6 For example, the association between site1.com and the location of cache may be intermediate
7 state information that is cached and used to fulfill subsequent requests.
8

9 23. As another example, patterns within the contents of a particular HTTP request
10 may be cached and used to identify subsequent requests having similar patterns. For example:

- 11 • **Dynamic Caching**—Caches data that may seem dynamic (contains query parameters,
12 cookies, or session IDs) but is actually static data or changes in an identifiable pattern.
13 By fully inspecting every aspect of HTTP requests, controlling caching behavior, and
14 invalidating cached data, BIG-IP WebAccelerator caches a high percentage of data
15 from dynamic web applications while maintaining proper application behavior. BIG-IP
16 WebAccelerator cache can scale up to 1 TB, depending on the hardware platform.

15 **Exhibit C at 4.**

16 24. In addition, the combination of persistent sessions in the context of load
17 balancing further practices limitation [d] above:
18

- 19  Load balancing of cache and proxy servers has long been a standard task for F5’s BIG-IP LTM.
20 However, cache and proxies have unique requirements over other types of applications. It’s not
21 realistically possible to cache an entire site, let alone the Internet, on a single cache device. The
22 solution is to intelligently load balance requests and ‘persist’ them to a specific cache not based on
23 who the client is, but based on the content requested. In a forward proxy example, all requests for
24 site1.com would go to cache1 while all requests for site2.com go to cache2. Since each cache gets all
25 the requests for their respective sites, they will have the most up to date version of the content
26 cached. This also allows the caches to scale more efficiently as each would only need to cache N
27 percent of the possible destination content. In BIG-IP LTM nomenclature, adding more members
(nodes or servers) to the pool reduces the percent of content such as URIs that any cache server
needs to store.

26 **Exhibit D at 1-2.**

1 25. Using F5's Big-IP's Platform also performs limitation [e] of Claim 1-- receiving
2 a second request for said first resource. For example, the BIG-IP Platform allows for repeated
3 requests to be directed to the same resource that handled the first request. As discussed above
4 with respect to **Exhibit C and Exhibit D**, the BIG-IP Platform uses persistence for efficiently
5 generating responses for repeated resource requests. This persistence involves handling repeated
6 requests in an HTML session.

7 26. Using F5's Big-IP's Platform performs limitation [f] of Claim 1 -- retrieving
8 said intermediate state information. For example, the BIG-IP Platform allows for repeated
9 requests to be directed to the same resource that handled the first request. As discussed above
10 with respect to **Exhibit D**, during session persistence, a particular server that handled the first
11 request handles subsequent requests.

12 27. Using F5's Big-IP's Platform performs limitation [g] of Claim 1 -- generating
13 a second response to said second request using said intermediate state information. For
14 example, F5's Big-IP's Platform is directed to dynamic caching and load balancing which
15 involves using intermediate state information to generate subsequent requests. F5's Big-IP's
16 Platform generates the second response by accessing the appropriate cache. As discussed
17 above with respect to **Exhibits B-D**, practicing F5's Big-IP's Platform performs retrieving
18 said intermediate state information.

19 28. On information and belief, F5 has used and operated the BIG-IP Platform in a
20 manner that infringes through the activities of testing, validating, training others, and/or
21 demonstrating the capabilities of the BIG-IP Platform.
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1 29. Because all elements of at least Claim 1 are present in the BIG-IP Platform,
2 either literally or under the doctrine of equivalents, F5's demonstration (use), sale, and offer
3 for sale of BIG-IP Platform components infringes at least Claim 1 of the 062 Patent.

4 30. F5 has knowledge and notice of the 062 Patent and its infringement thereof, at
5 least as early as August 16, 2018 when it received a letter from AMT dated August 14, 2018
6 that described the 062 Patent, and provided a claim chart in relation to the BIG-IP Platform
7 demonstrating the infringement as outlined herein.
8

9 31. F5 has induced infringement, and continues to induce infringement, of one or
10 more claims of the 062 Patent under 35 U.S.C. § 271(b). With the aforesaid knowledge of the
11 062 Patent and infringement thereof, F5 actively, knowingly, and intentionally induced, and
12 continues to actively, knowingly, and intentionally induce, infringement of the 062 Patent by
13 selling or otherwise supplying the BIG-IP Platform with the knowledge and intent that third
14 parties will use, sell, and/or offer for sale in the United States, and/or import into the United
15 States the BIG-IP Platform for their intended purpose to infringe the 062 Patent; and with the
16 knowledge and intent to encourage and facilitate the infringement through the dissemination
17 of the BIG-IP Platform and/or the creation and dissemination of documentation and technical
18 information related to the BIG-IP Platform. In addition, F5 encourages its customers to use
19 the BIG-IP Platform in manner that infringes the 062 Patent by disseminating user manuals,
20 articles, and other documentations describing how to configure and use the BIG-IP Platform.
21

22 32. With the aforesaid knowledge of the 062 Patent and the infringement thereof,
23 F5 has contributed to the infringement by third parties, including F5's customers, and
24 continues to contribute to infringement by third parties, including the F5's customers, of one
25 or more claims of the 062 Patent under 35 U.S.C. § 271(c), by selling and/or offering for sale
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1 in the United States and/or importing into the United States the BIG-IP Platform knowing that
 2 those products constitute a material part of the inventions of the 062 Patent, knowing that use
 3 of those products are especially made or adapted to infringe the 062 Patent, and knowing that
 4 those products are not staple articles of commerce suitable for substantial non-infringing use.

5 33. By reason of these infringing activities, AMT has suffered, and will continue to
 6 suffer, substantial damages in an amount to be determined at trial, including but not limited to a
 7 reasonable royalty.
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9 **PRAYER FOR RELIEF**

10 WHEREFORE, AMT respectfully requests the Court to enter judgment as follows:

11 A. That F5 has directly and indirectly infringed the 062 Patent;

12 B. That F5 be ordered to pay damages adequate to compensate AMT for its
 13 infringement of the 062 Patent, but in no event less than a reasonable royalty, together with
 14 prejudgment and post-judgment interest thereon;

15 C. That F5 be ordered to account for any post-verdict infringement;

16 D. That this case be declared exceptional under 35 U.S.C. §285 and that AMT be
 17 awarded its reasonable attorneys' fees, costs, and expenses; and
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19 E. That AMT be granted such other and additional relief as the Court deems just and
 20 proper.

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JURY DEMAND

AMT demands a trial by jury on all issues presented in this Complaint.

Dated this 7th day of February, 2019.

Respectfully submitted,

s/ Philip P. Mann

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